

KIC 010924282

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
010924282-01	OBS	No	2.289014	131.624618	26.4	6.268	11.0	11.8	1.86	7262	1.11	5893.82

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
010924282-01	OBS	FP	0.00	1	0	0	0	SWEET_NTL—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

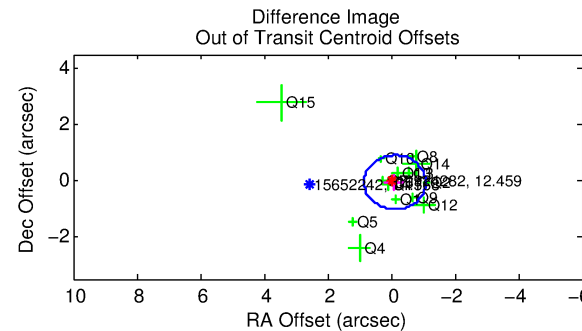
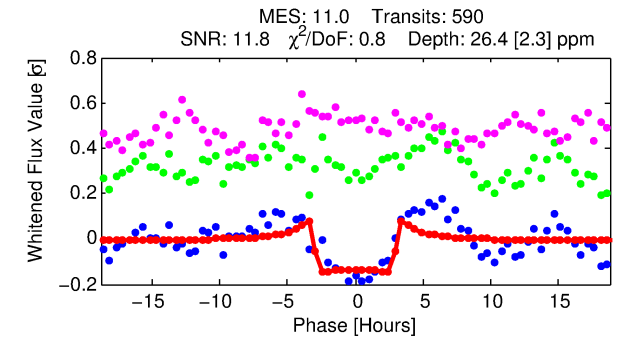
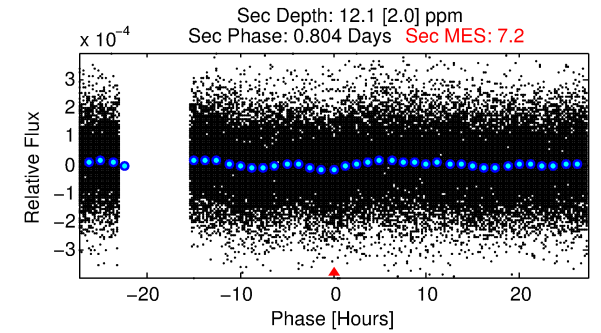
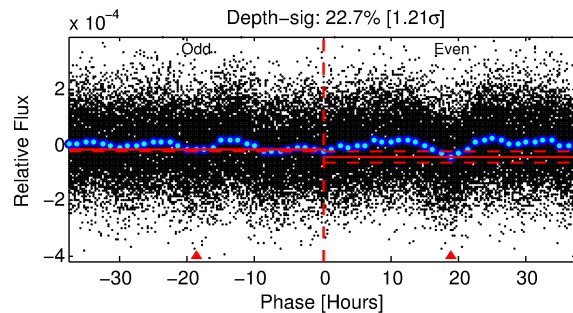
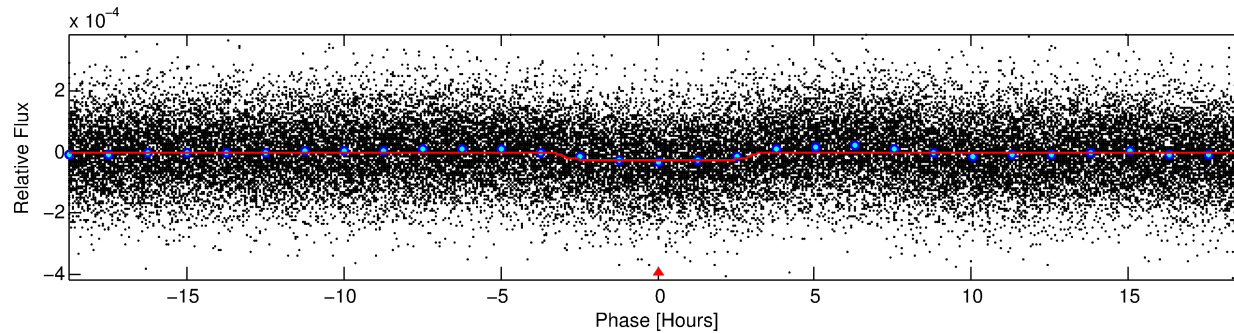
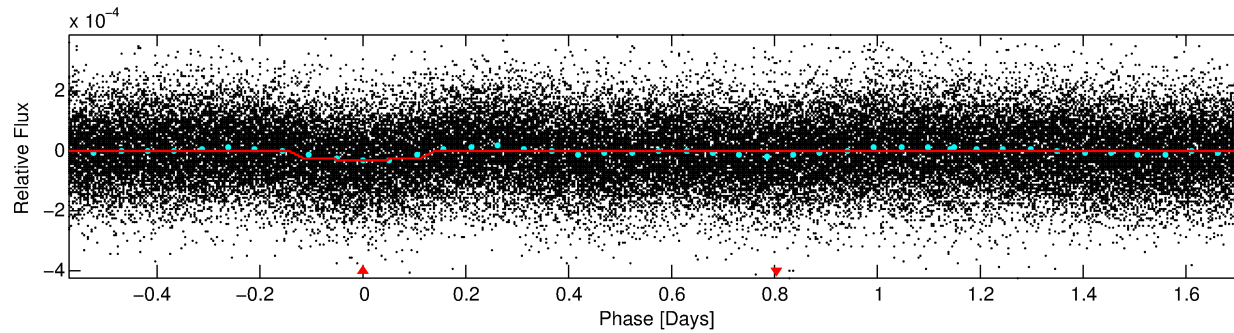
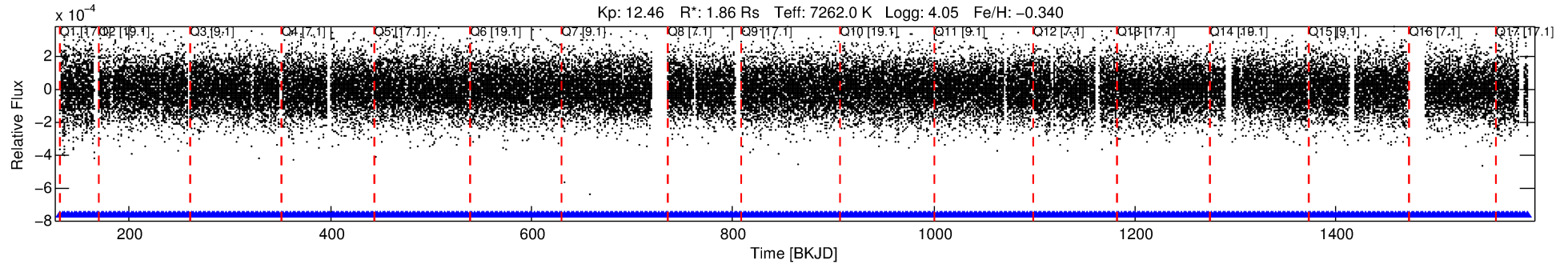
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 010924282-01

No Significant Match Found

DV One-Page Summary

KIC: 10924282 Candidate: 1 of 1 Period: 2.289 d



DV Fit Results:

Period = 2.28901 [0.00001] d
Epoch = 131.6246 [0.0033] BKJD
Rp/R* = 0.0055 [0.0009]
a/R* = 1.56 [0.89]
b = 0.90 [0.20]
Seff = 5893.82 [2456.45]
Teq = 2234 [233] K
Rp = 1.11 [0.37] Re
a = 0.0383 [0.0097] AU
Ag = 7.96 [4.16] [1.67 σ]
Teffp = 5803 [571] K [5.79 σ]

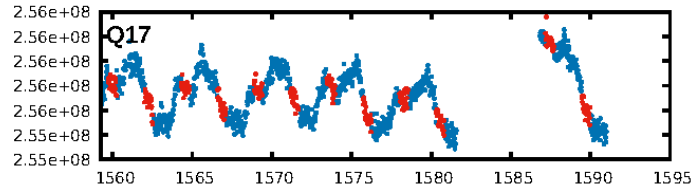
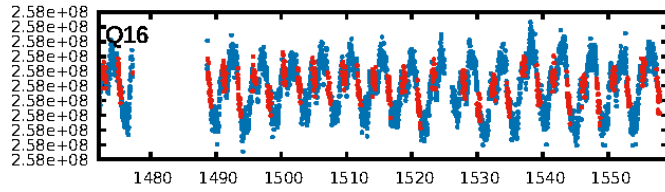
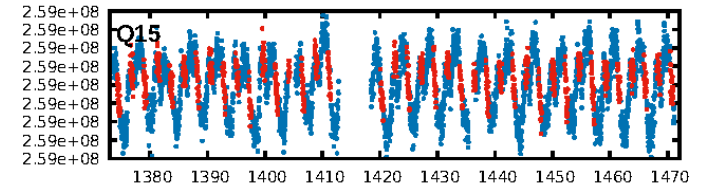
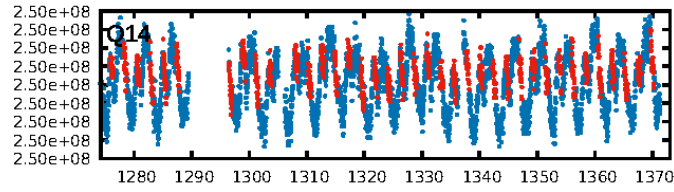
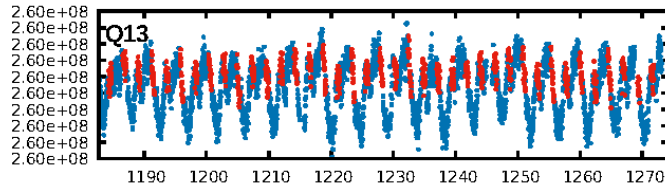
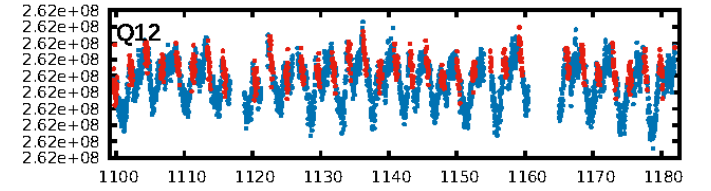
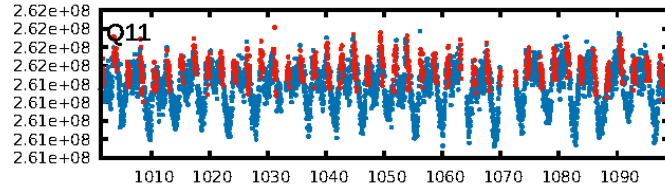
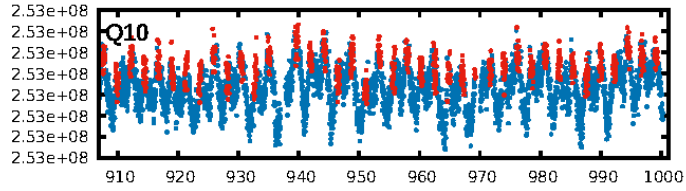
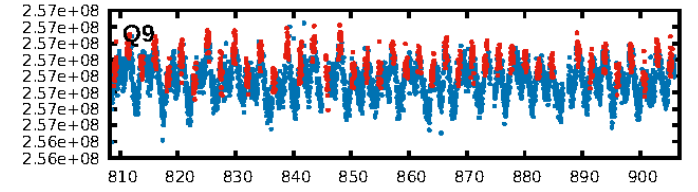
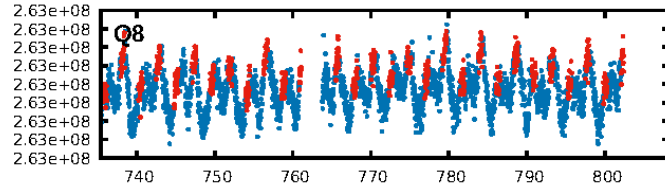
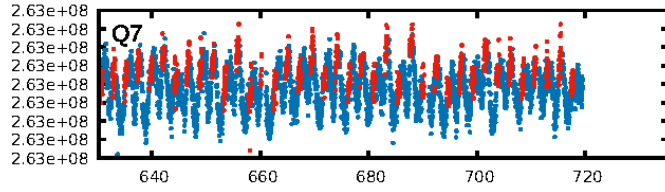
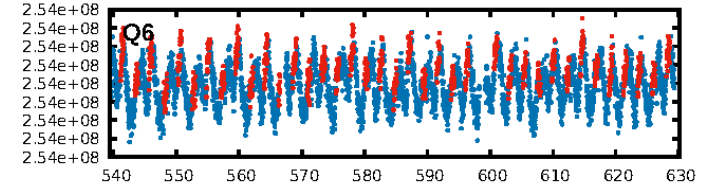
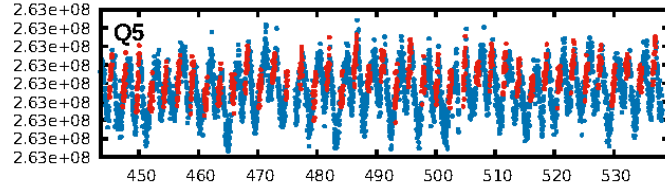
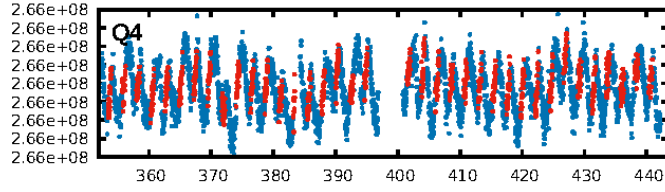
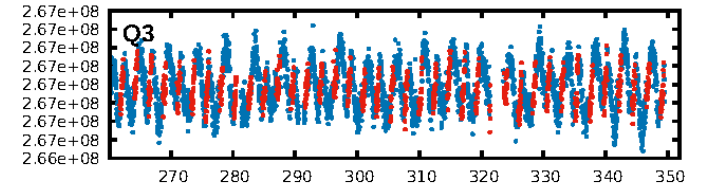
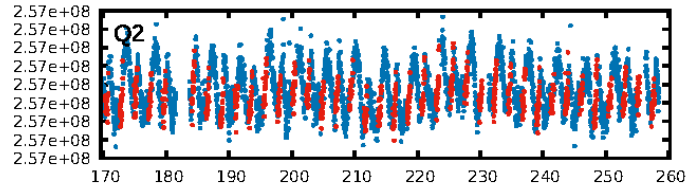
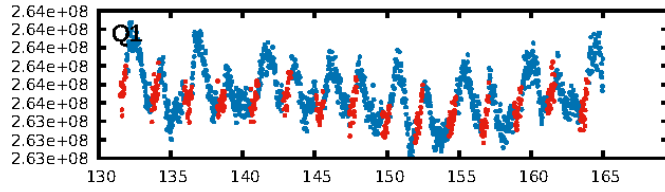
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 4.50e-20
RollingBand-fgm: 1.00 [563/563]
GhostDiagnostic-chr: 7.401
Centroid-sig: 0.1%
Centroid-so: 1.402 arcsec [2.65 σ]
OotOffset-rm: 0.128 arcsec [0.40 σ]
KicOffset-rm: 0.138 arcsec [0.51 σ]
OotOffset-st: 4/4/3/4 [15]
KicOffset-st: 4/4/3/4 [15]
DiffImageQuality-fgm: 0.27 [4/15]
DiffImageOverlap-fno: 1.00 [17/17]

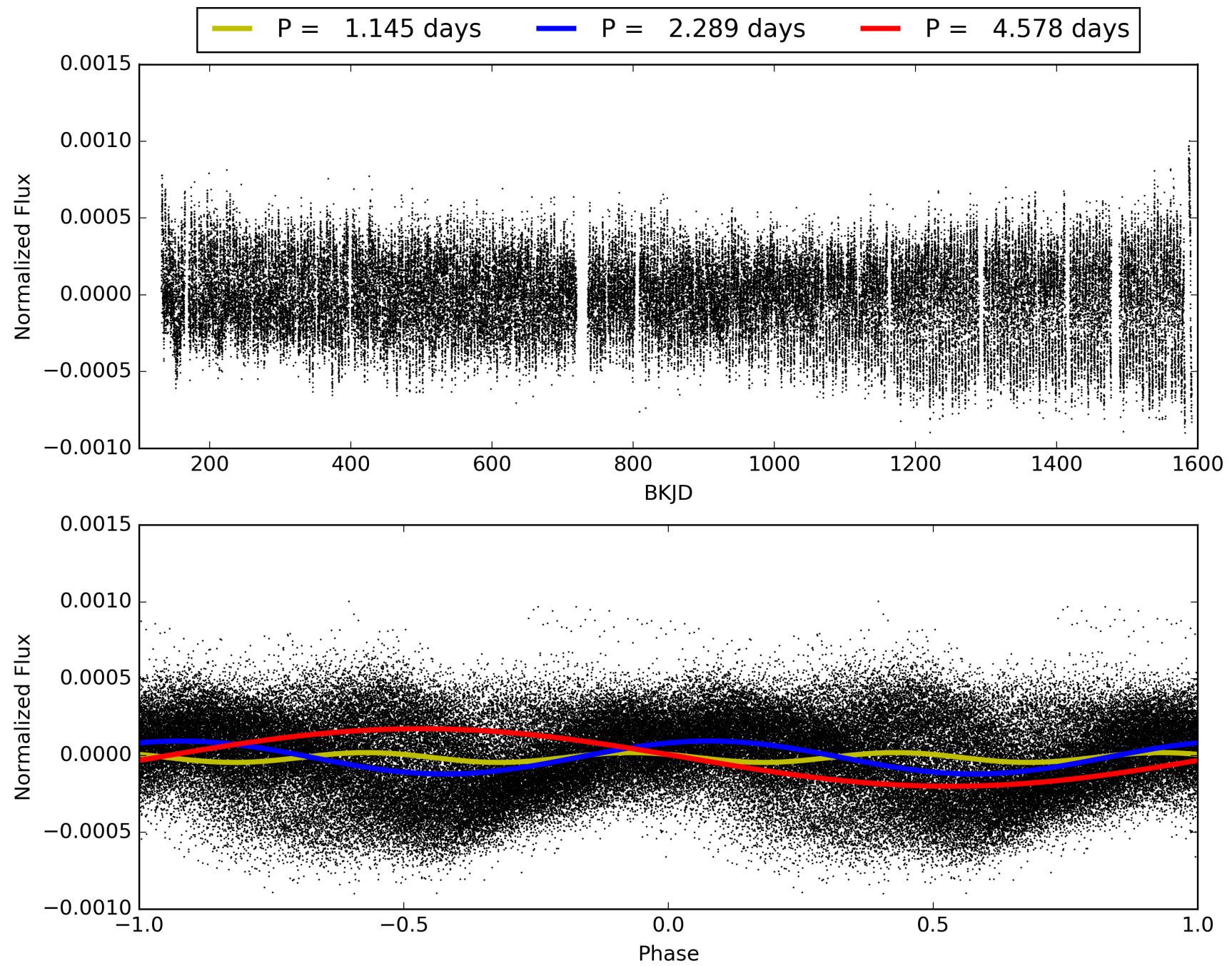
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 29-Jan-2016 00:54:53 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 010924282-01, PDC Light Curves

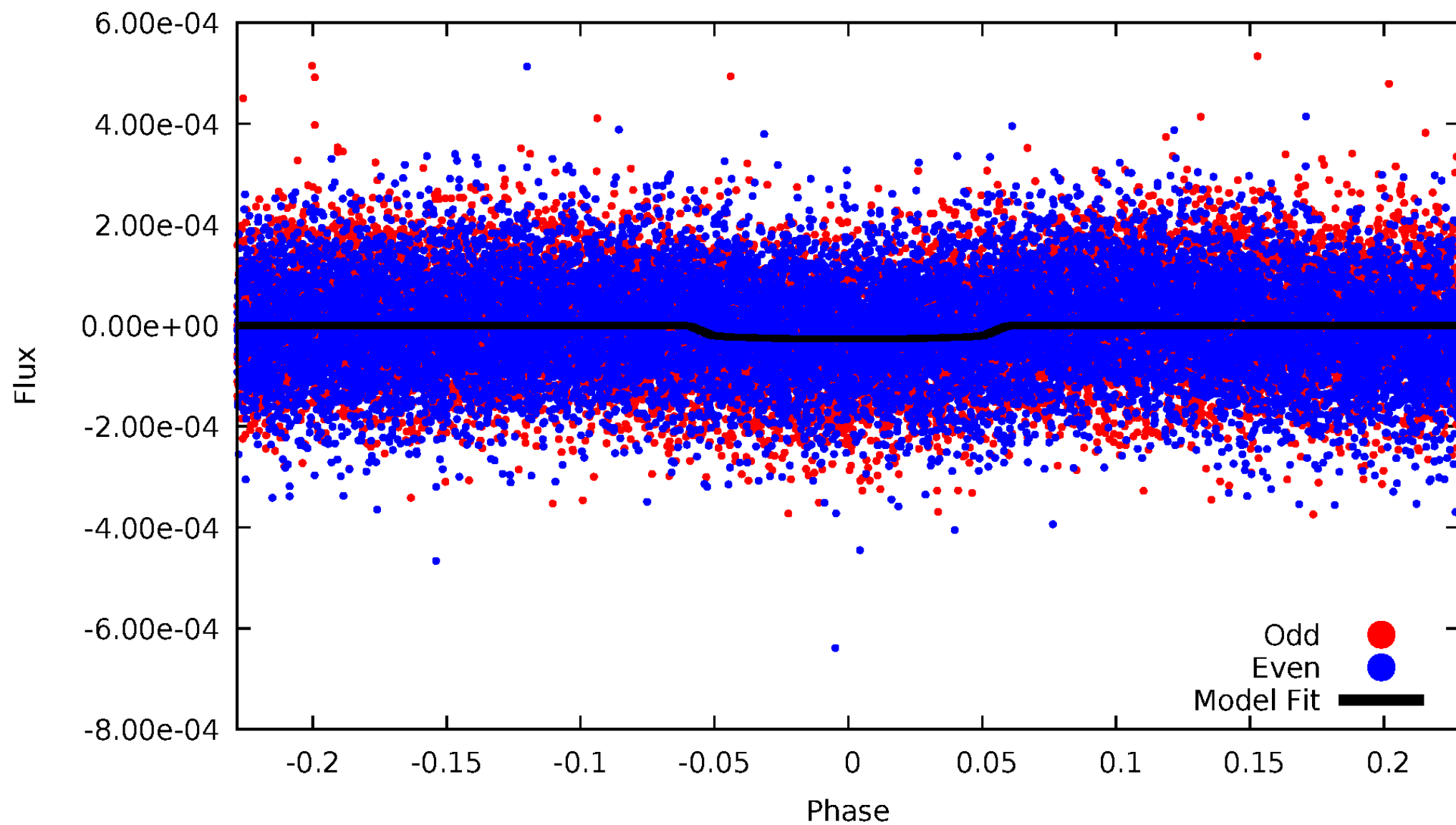


TCE 010924282-01



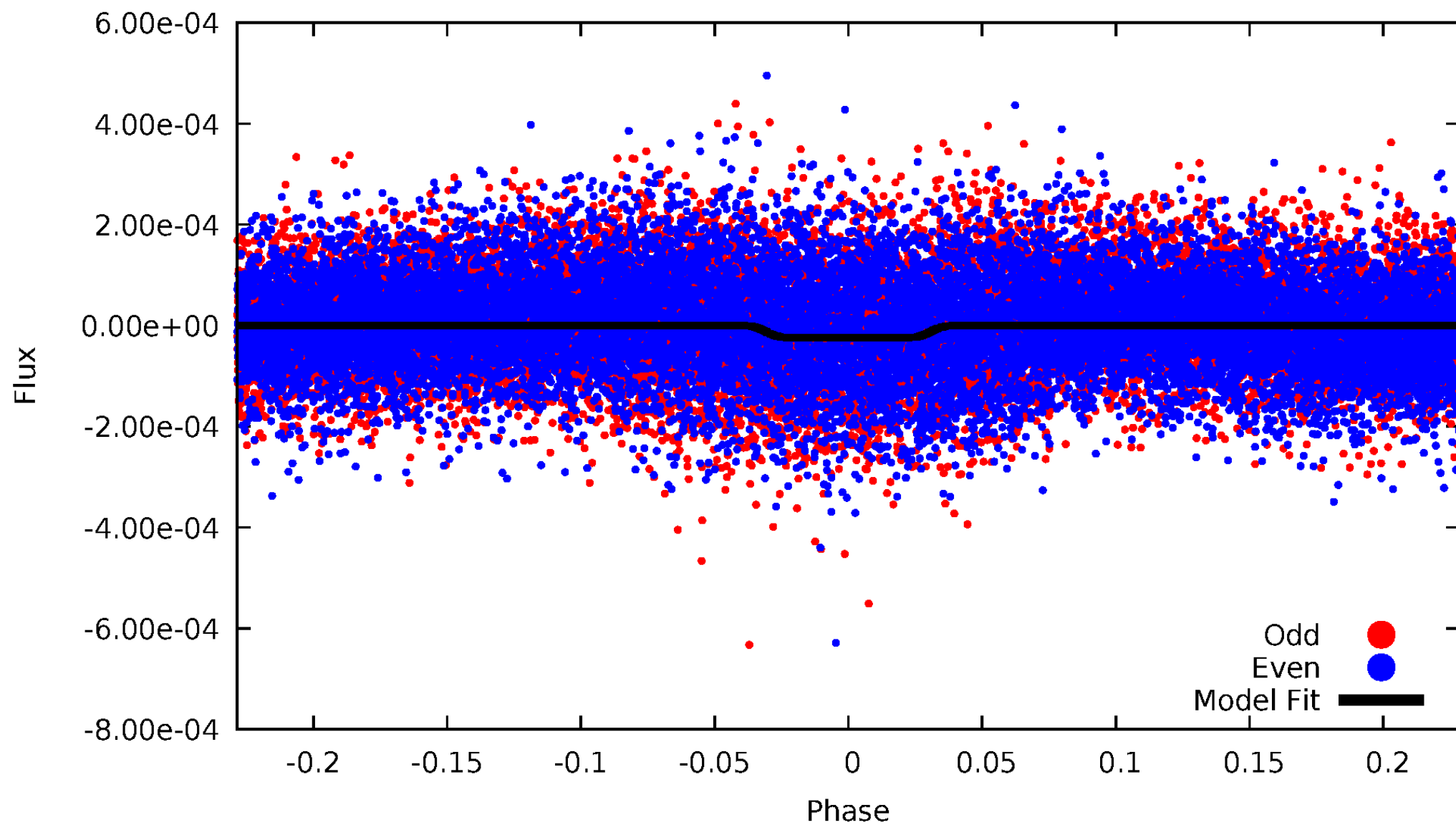
DV Odd/Even

TCE 010924282-01



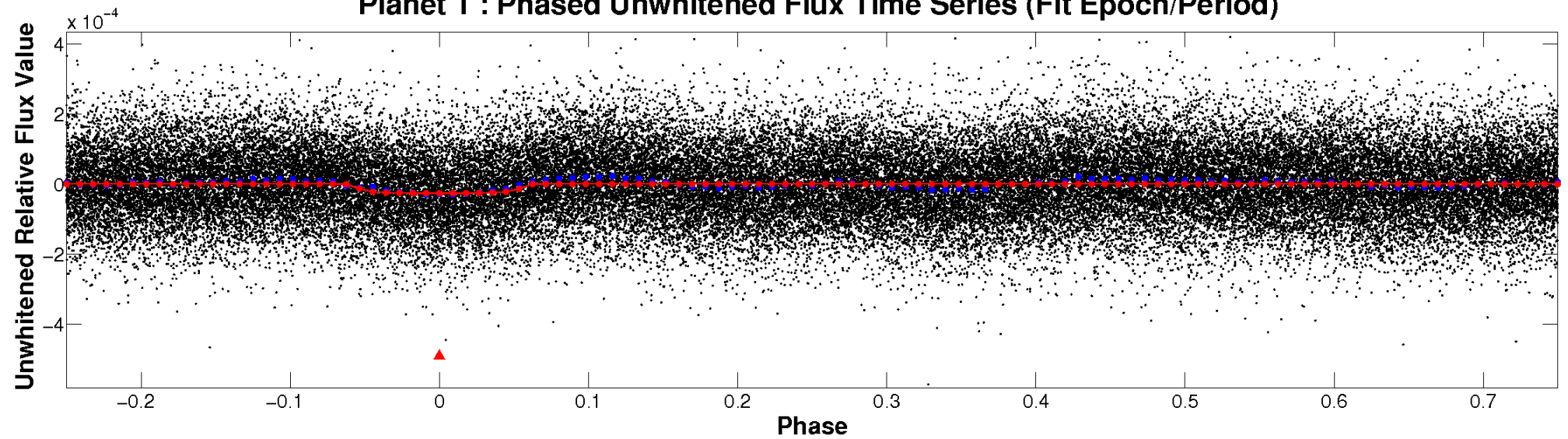
ALT Odd/Even

TCE 010924282-01

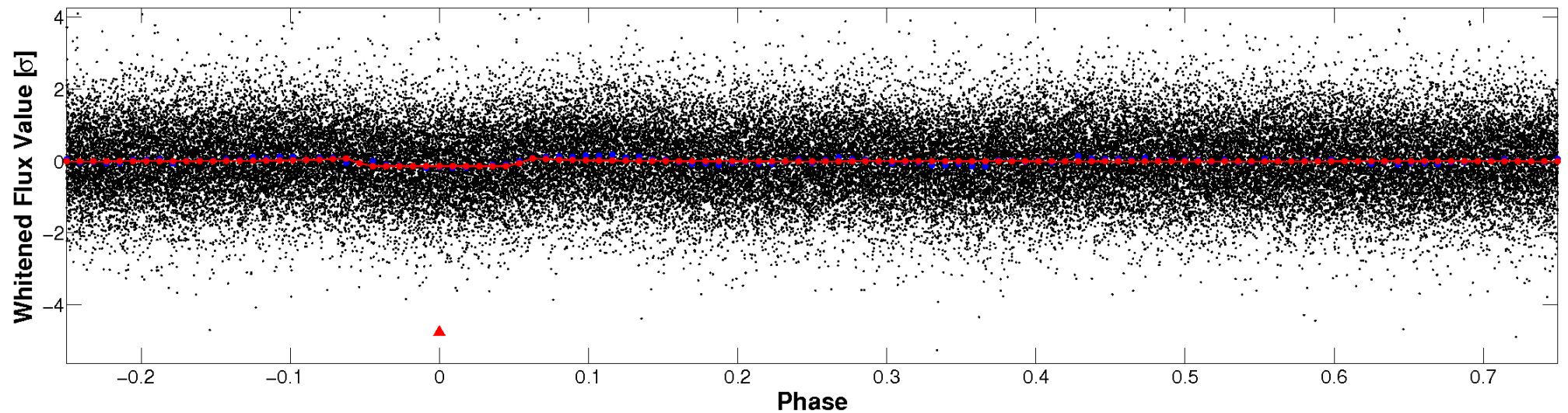


Non-Whitened Vs. Whitened Light Curve

Planet 1 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

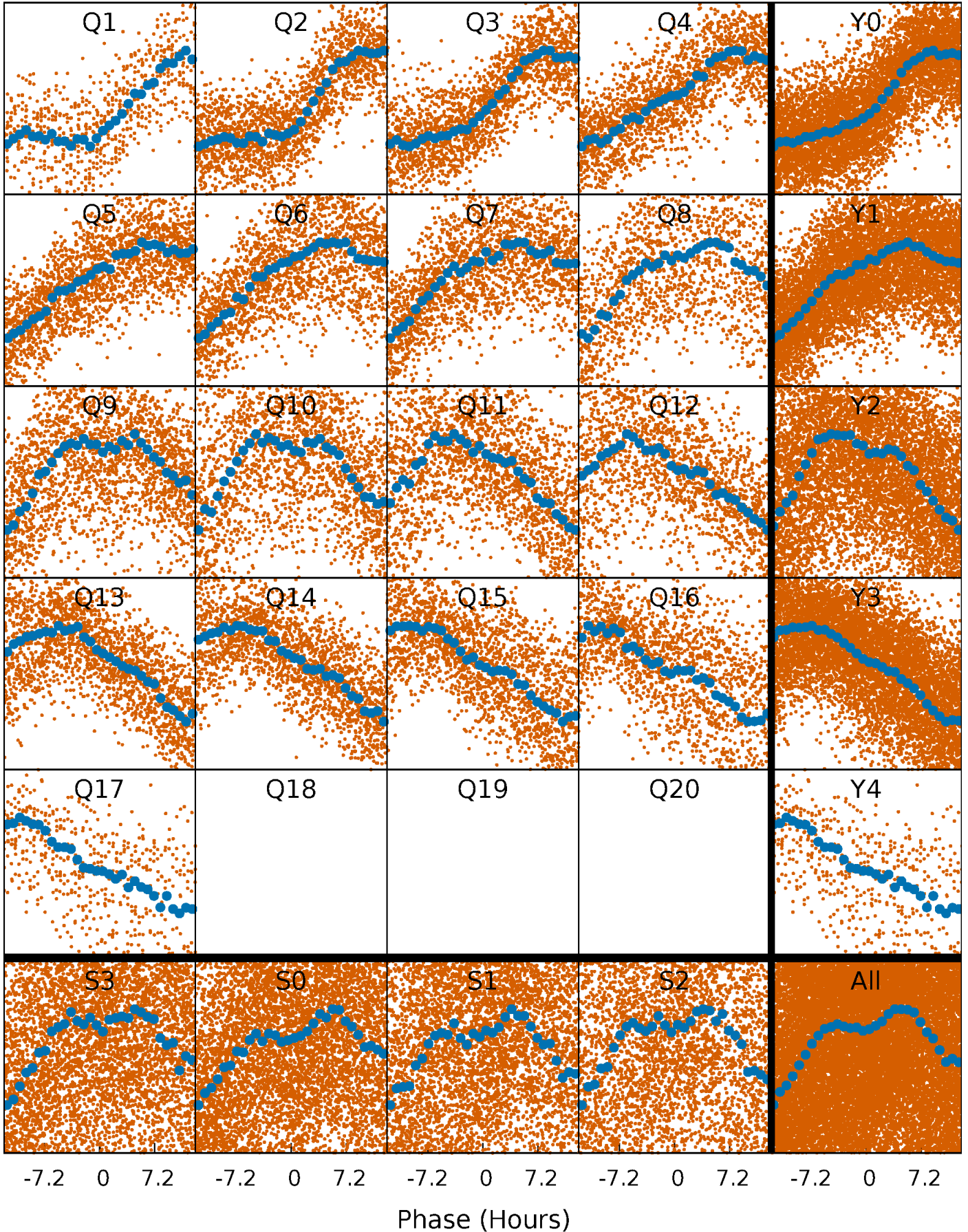


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



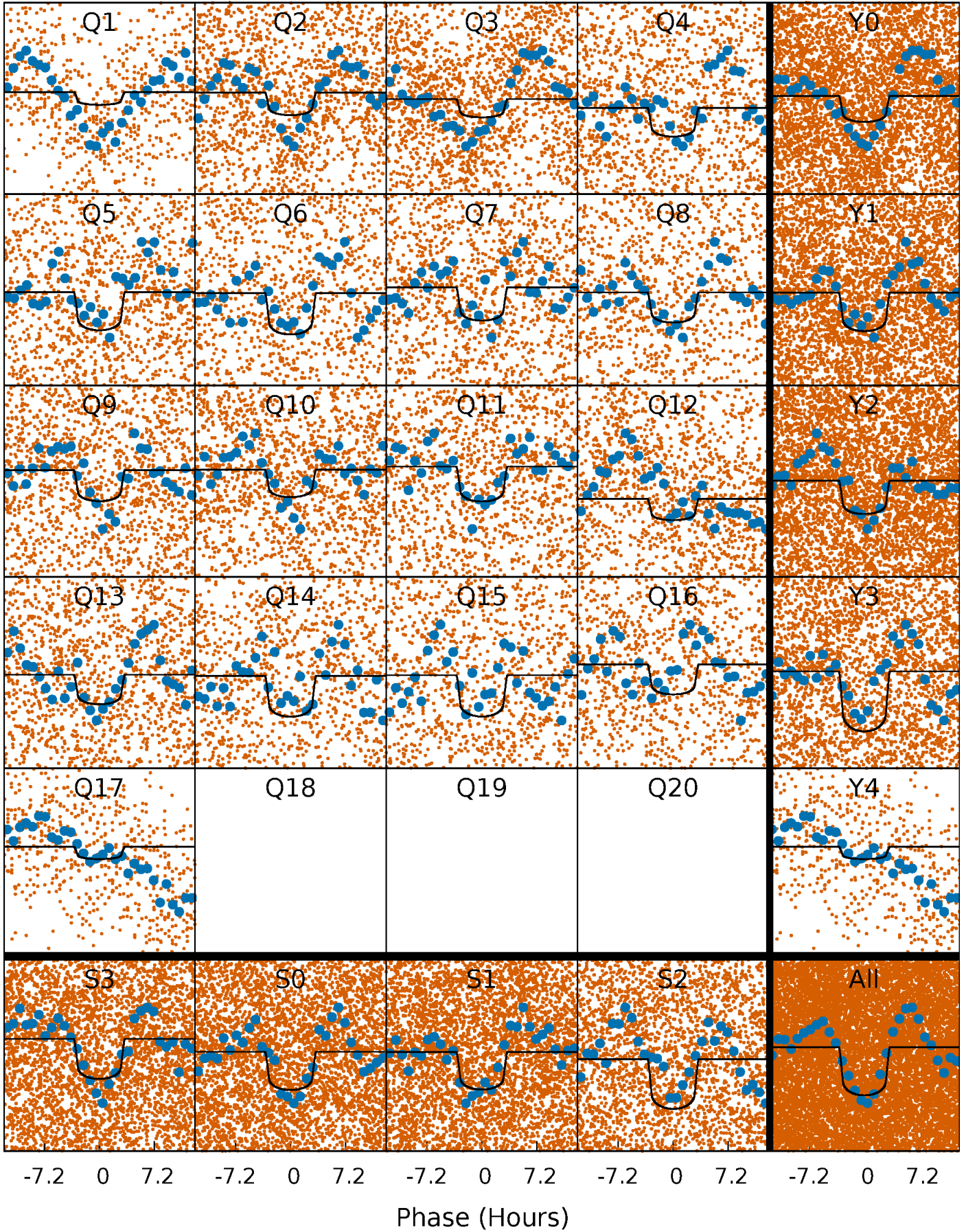
PDC Quarter-Phased Transit Curves

TCE 010924282-01 P= 2.289014 Days $T_0=131.624618$ (BKJD)



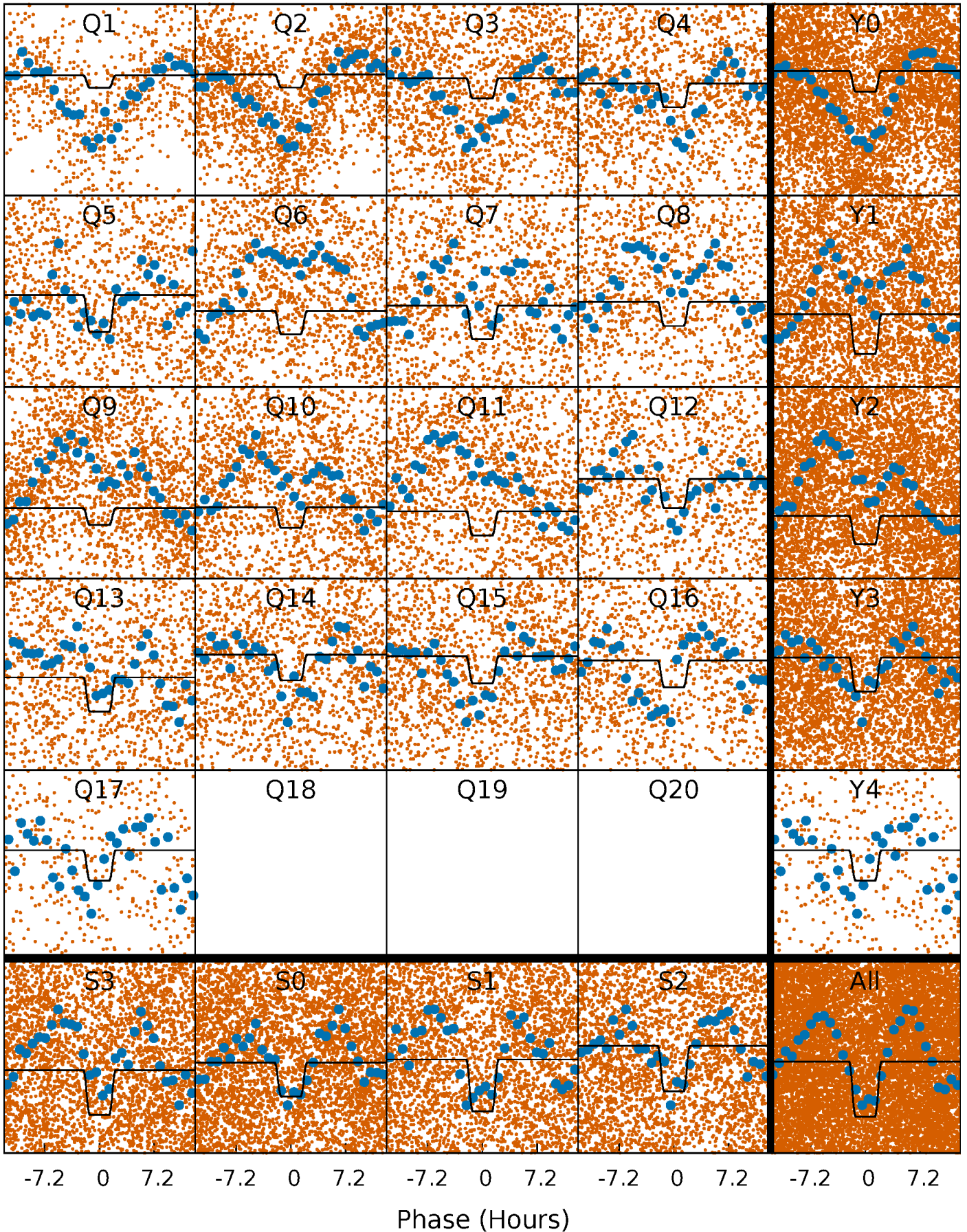
DV Quarter-Phased Transit Curves

TCE 010924282-01 P= 2.289014 Days $T_0=131.624618$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

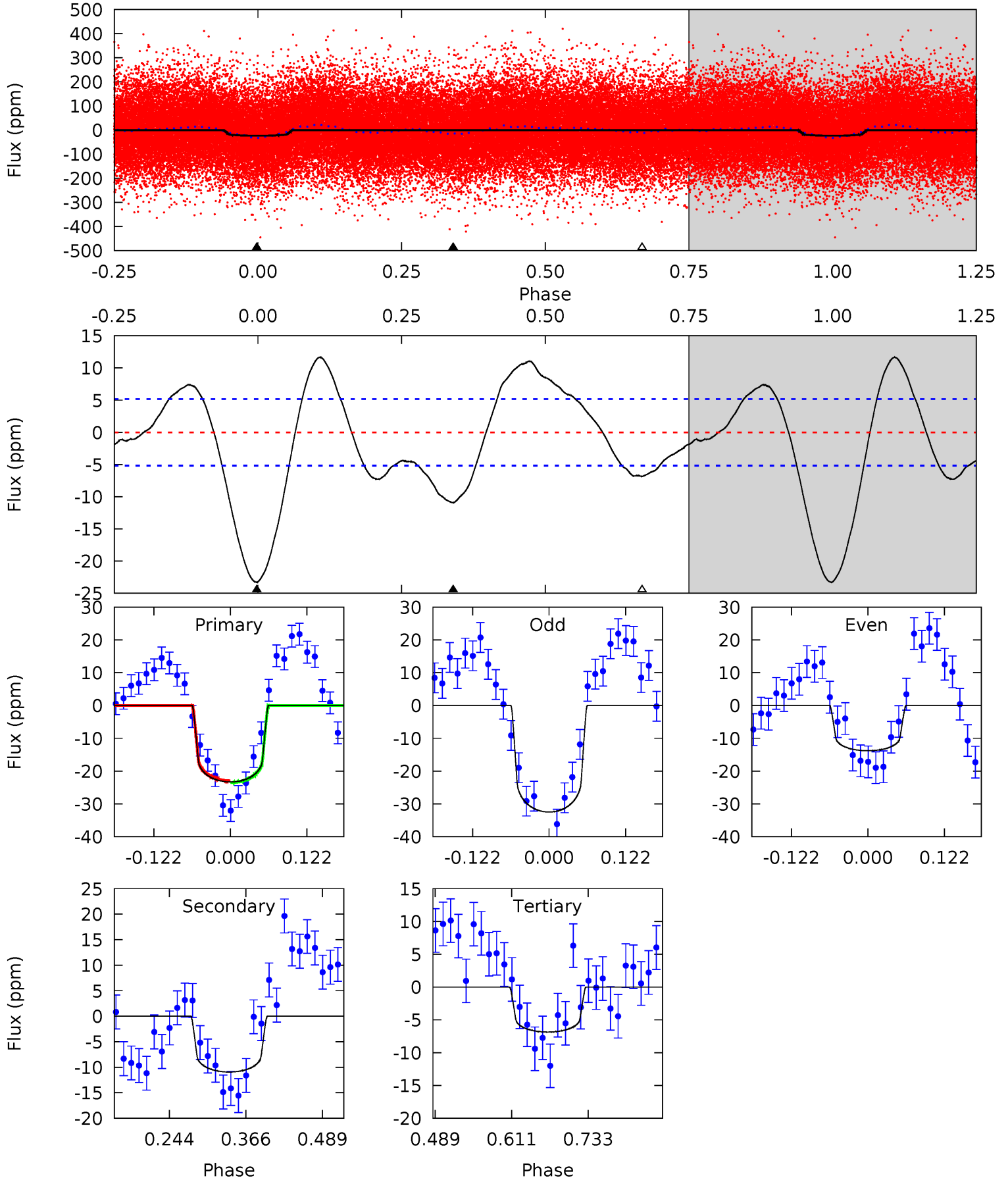
TCE 010924282-01 P= 2.288995 Days $T_0=131.628573$ (BKJD)



DV Model-Shift Uniqueness Test

010924282-01, P = 2.289014 Days, E = 129.335604 Days

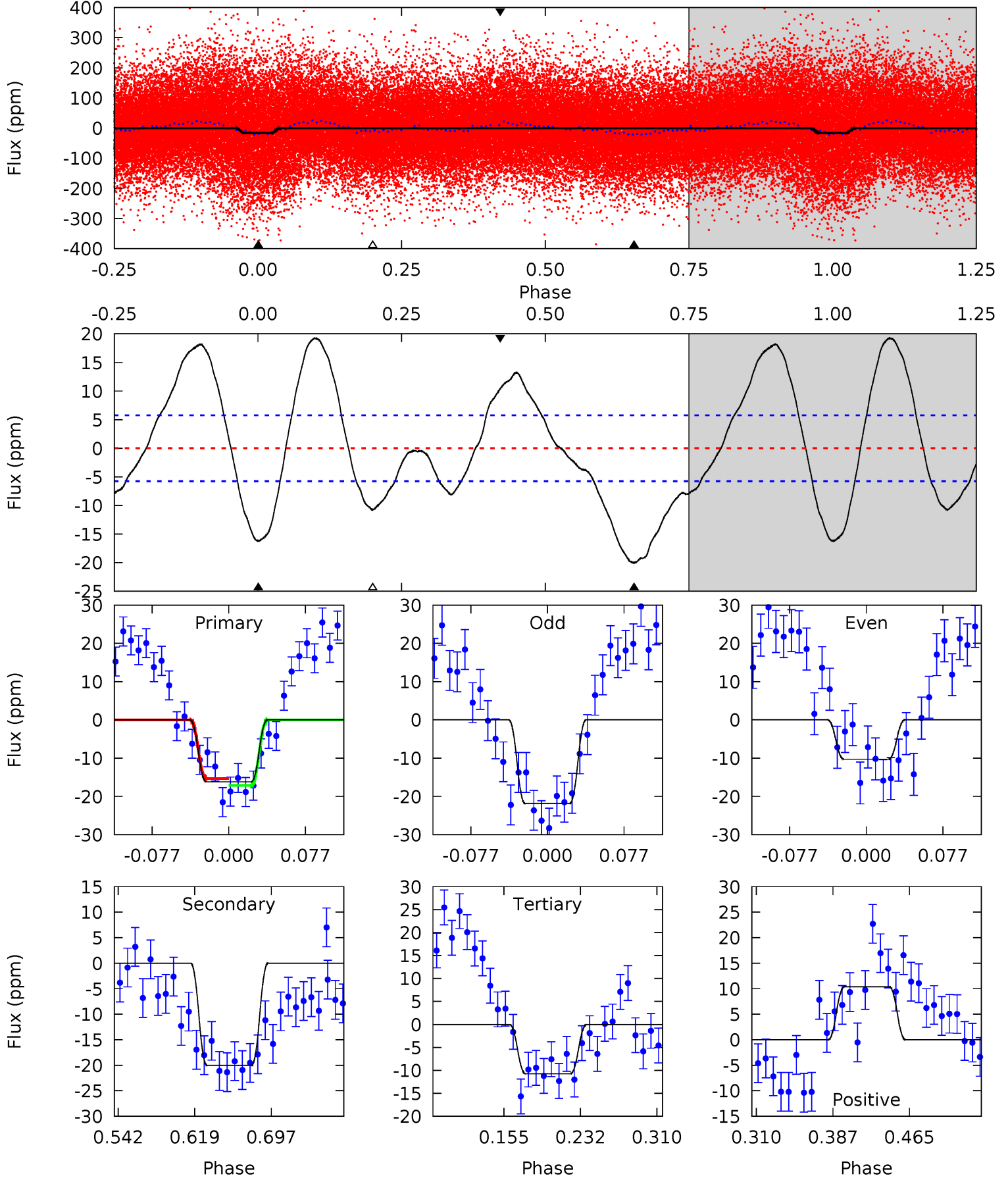
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.4	9.57	6.00	0	4.52	1.55	4.76	14.4	20.4	3.57	9.57	8.19	1.03	0.33	0.24



Alt Model-Shift Uniqueness Test

010924282-01, P = 2.288995 Days, E = 129.339578 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.0	16.0	8.62	8.33	4.62	1.77	7.08	4.37	4.66	7.43	7.72	4.61	1.08	0.49	0.72



Stellar Parameters For KIC 010924282

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	R (R_{\odot})	$M(M_{\odot})$	p_{\star} ($\text{g}\cdot\text{cm}^{-3}$)
	7262^{+228}_{-304}	$4.053^{+0.214}_{-0.175}$	$-0.340^{+0.300}_{-0.300}$	$1.863^{+0.543}_{-0.489}$	$1.428^{+0.216}_{-0.241}$	$0.311^{+0.397}_{-0.154}$
	+3%/-4%	+5%/-4%	+88%/-88%	+29%/-26%	+15%/-17%	+127%/-49%
Source	KIC0	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 010924282-01 / KOI

Detrend	Depth (ppm)	R_p (R_{\oplus})	T_{max} (K)	T_{obs} (K)	A_{obs}
DV	-11 ± 1	$1.09^{+0.26}_{-0.23}$	3100^{+228}_{-252}	5526^{+539}_{-415}	$7.316^{+4.497}_{-2.433}$
Alt.	-20 ± 1	$0.99^{+0.23}_{-0.23}$	3108^{+243}_{-251}	6840^{+845}_{-655}	16^{+10}_{-6}

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming $A=0.3$)

A_{obs} = Observed Albedo (Assuming $T=0$)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

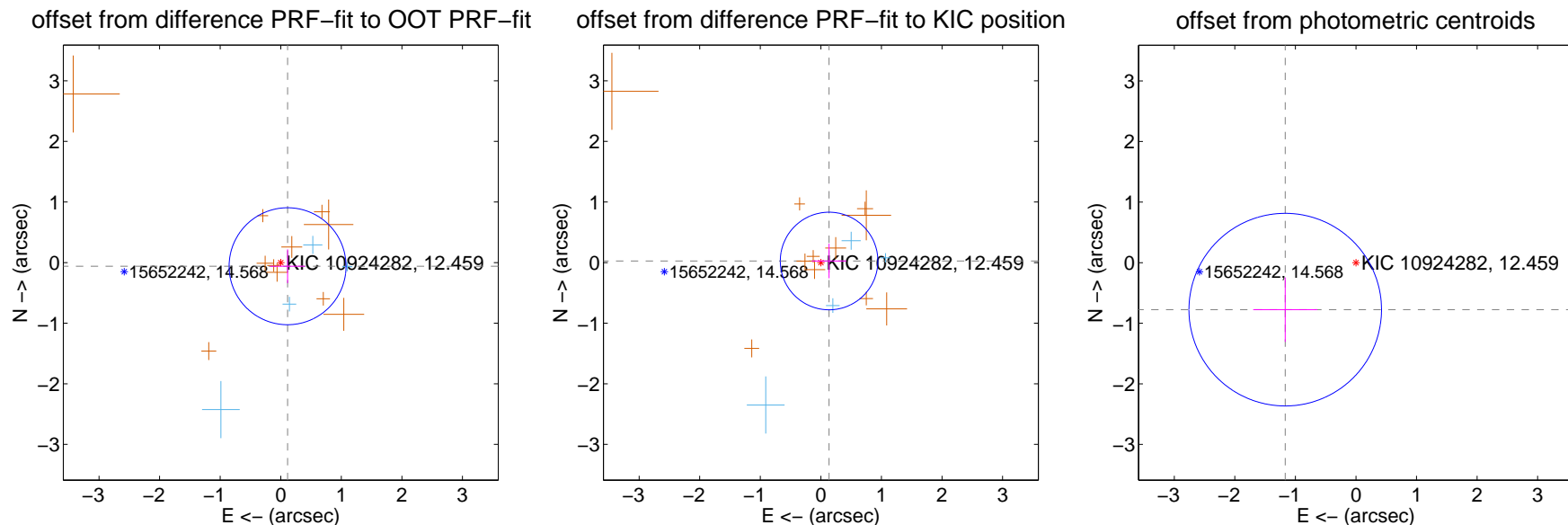
DV Centroid Data

Supplemental centroid analysis for 010924282-01. Kepler magnitude: 12.46. Transit SNR 11.78

There are 4 quarters with good PRF difference image offsets

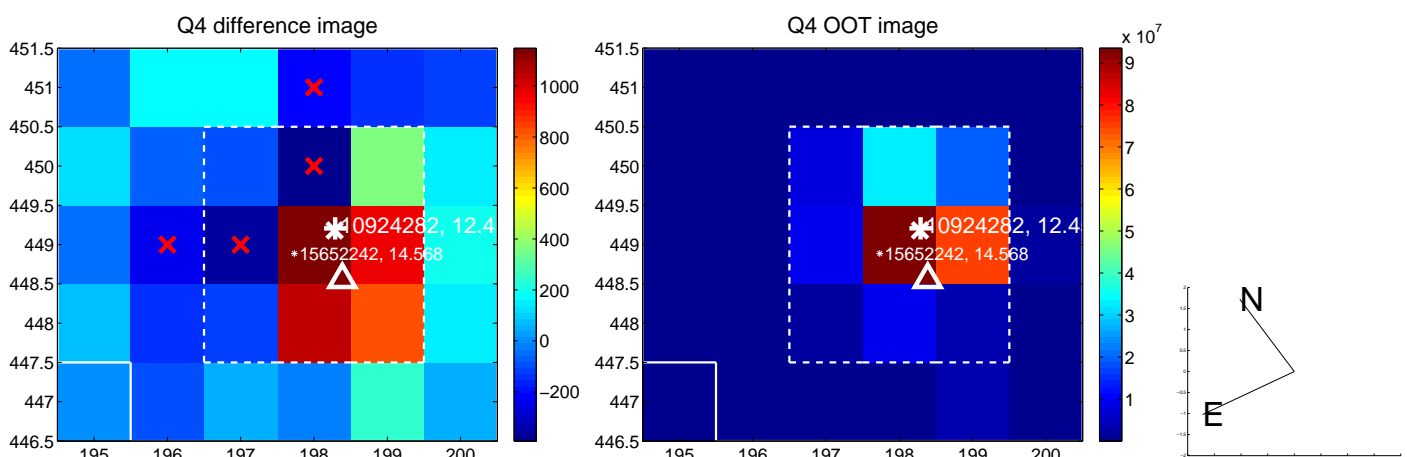
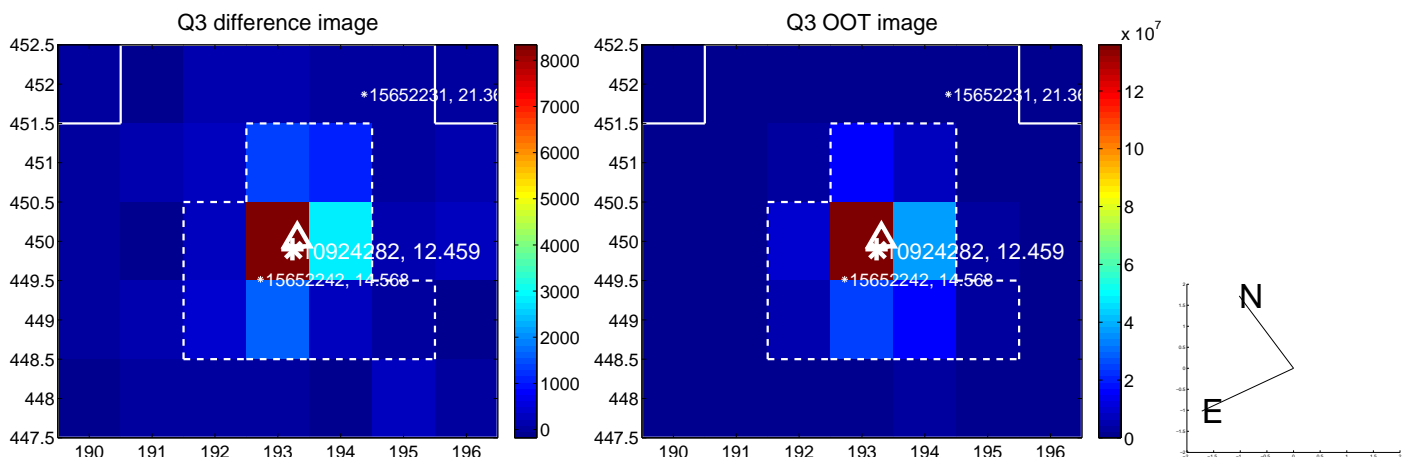
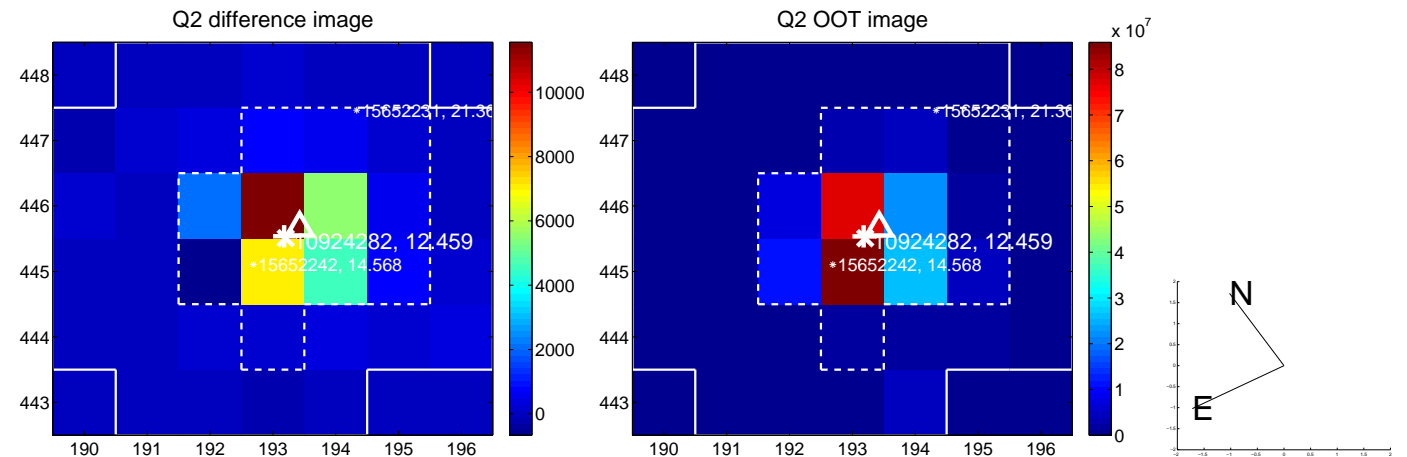
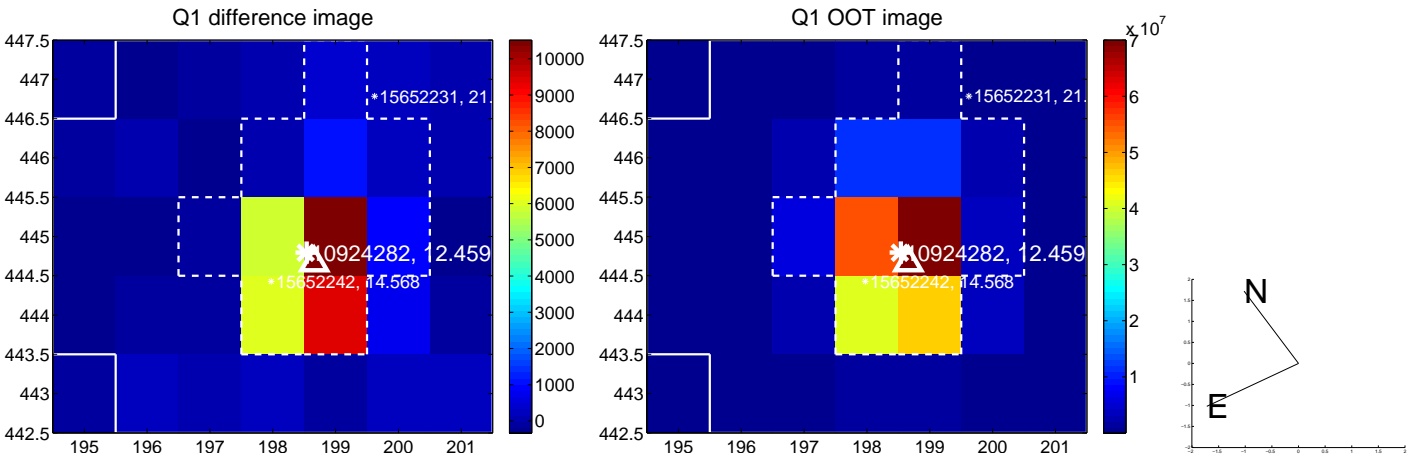
The direct PRF centroid is offset from the target star catalog position by about 0.05 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.128 ± 0.322	0.40	-0.113 ± 0.290	-0.060 ± 0.279
PRF-fit source offset from KIC position	0.138 ± 0.268	0.51	-0.136 ± 0.285	0.026 ± 0.285
photometric centroid source offset	1.40 ± 0.53	2.65	1.17 ± 0.53	-0.78 ± 0.53

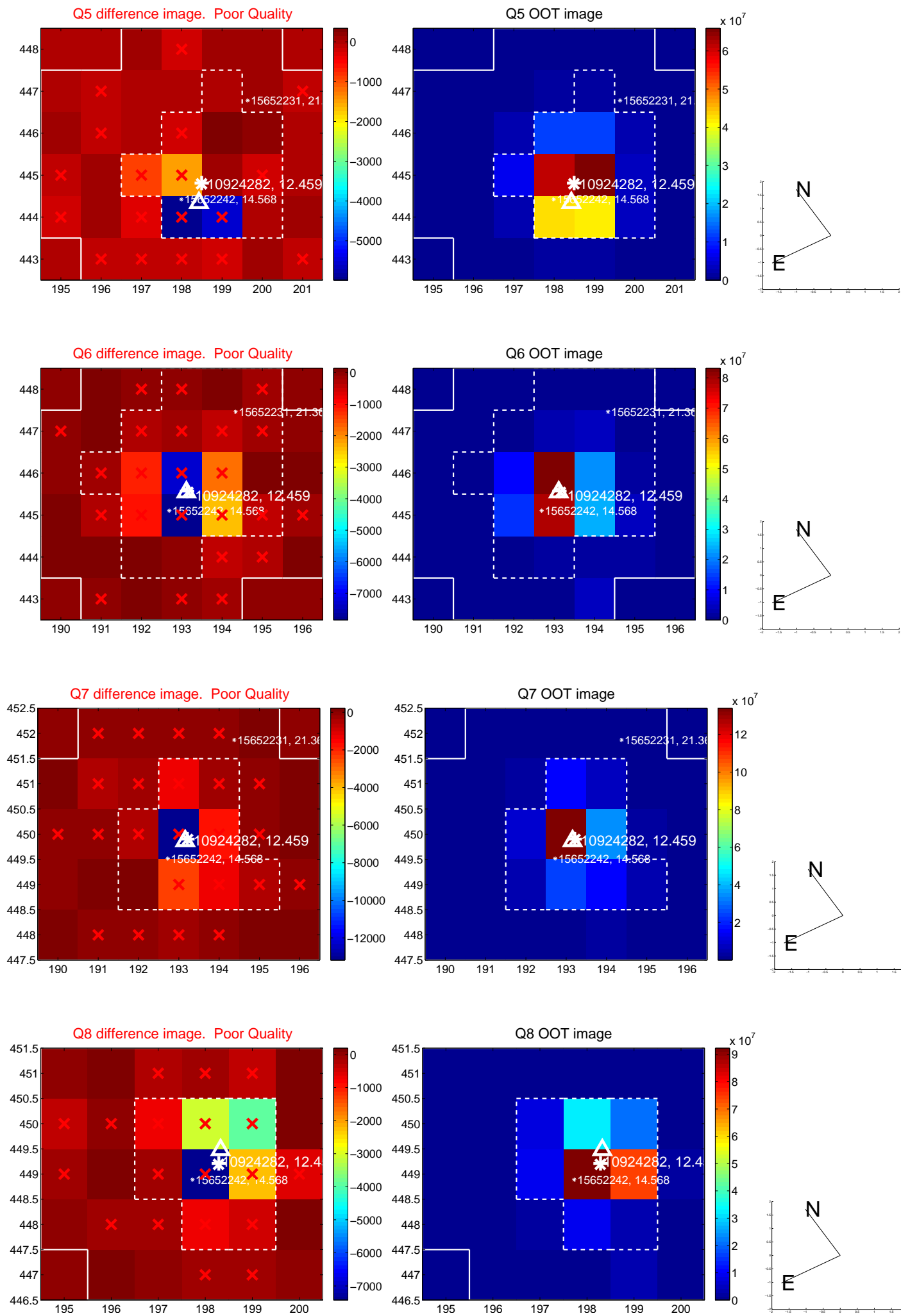


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

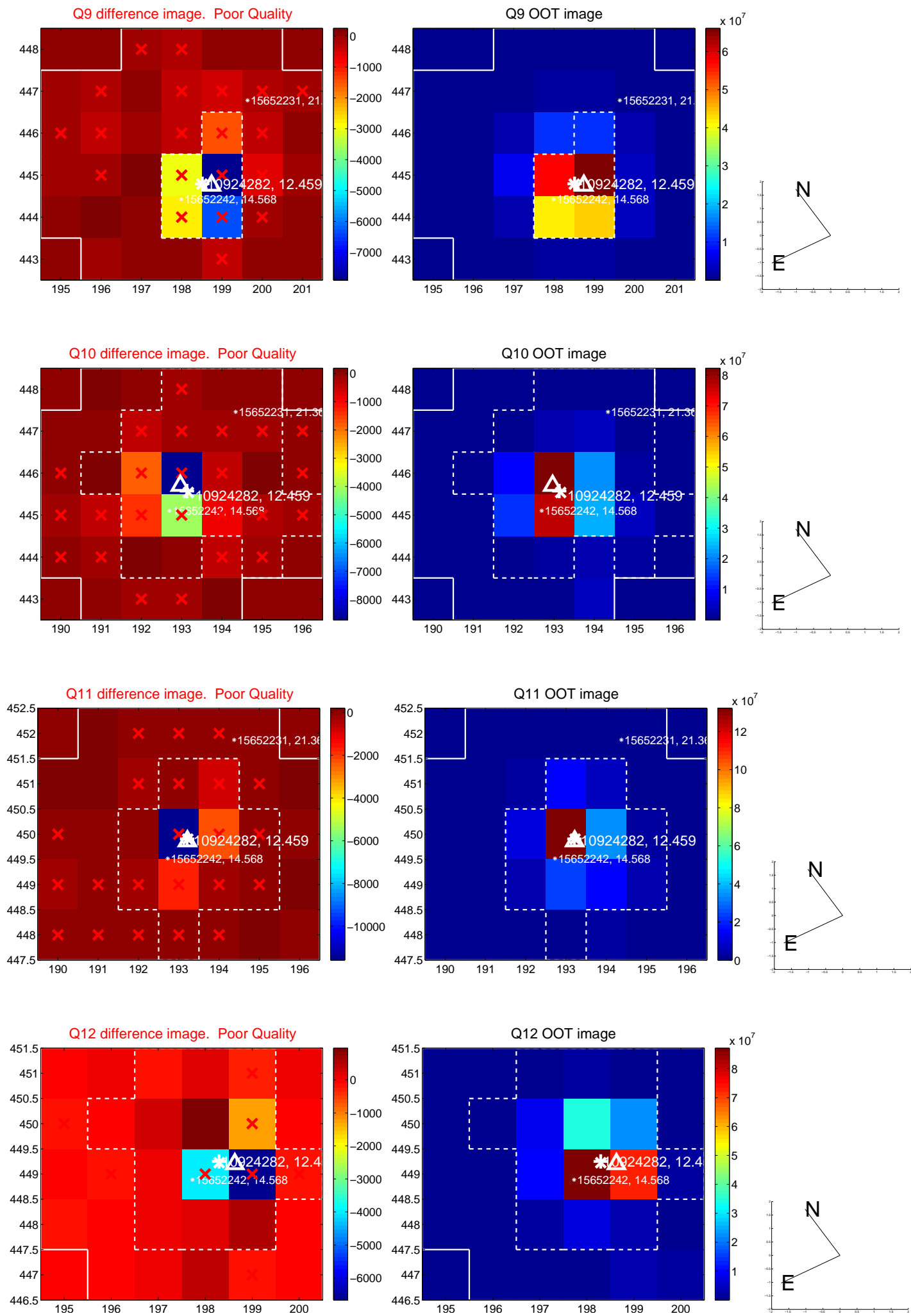
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



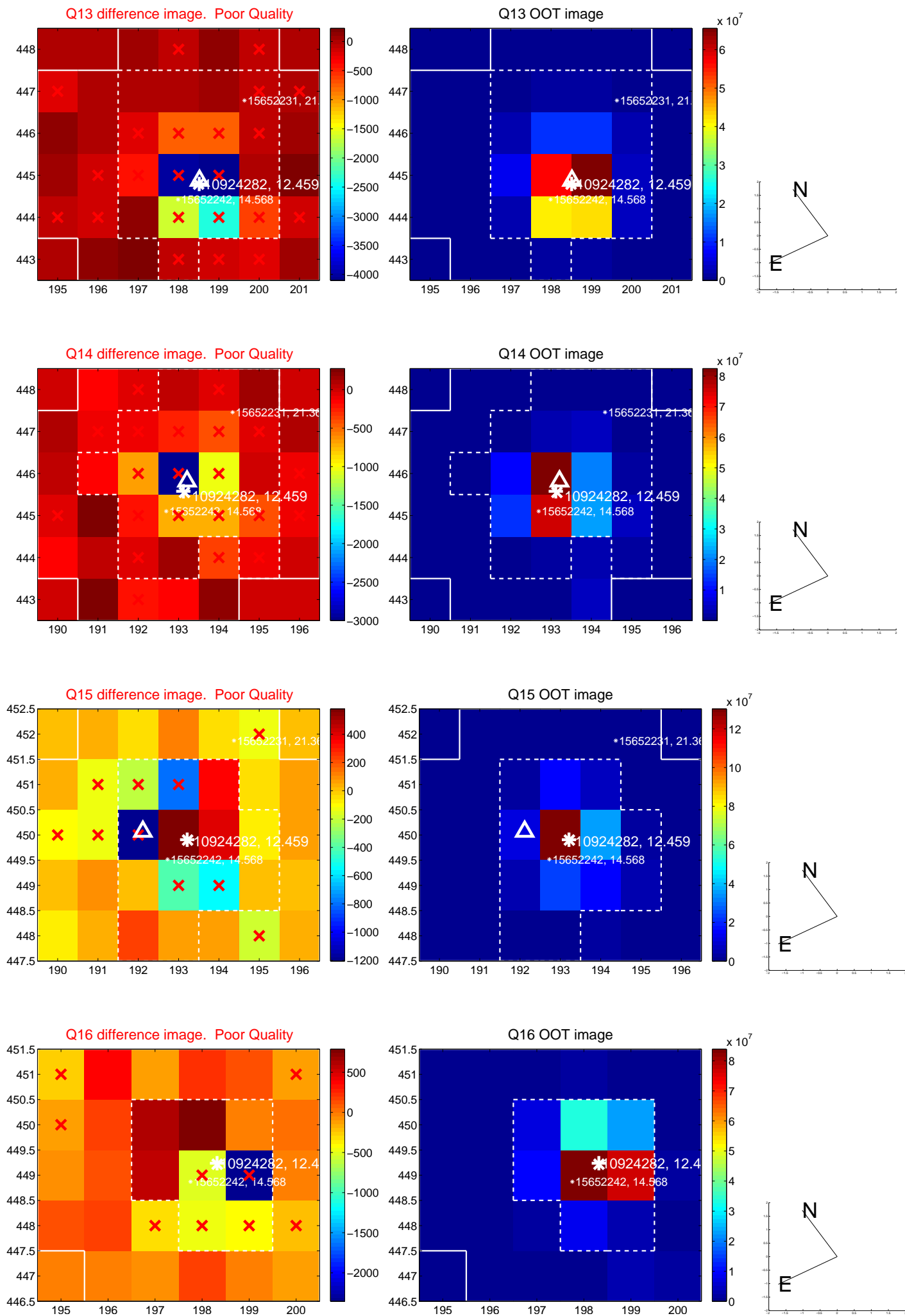
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



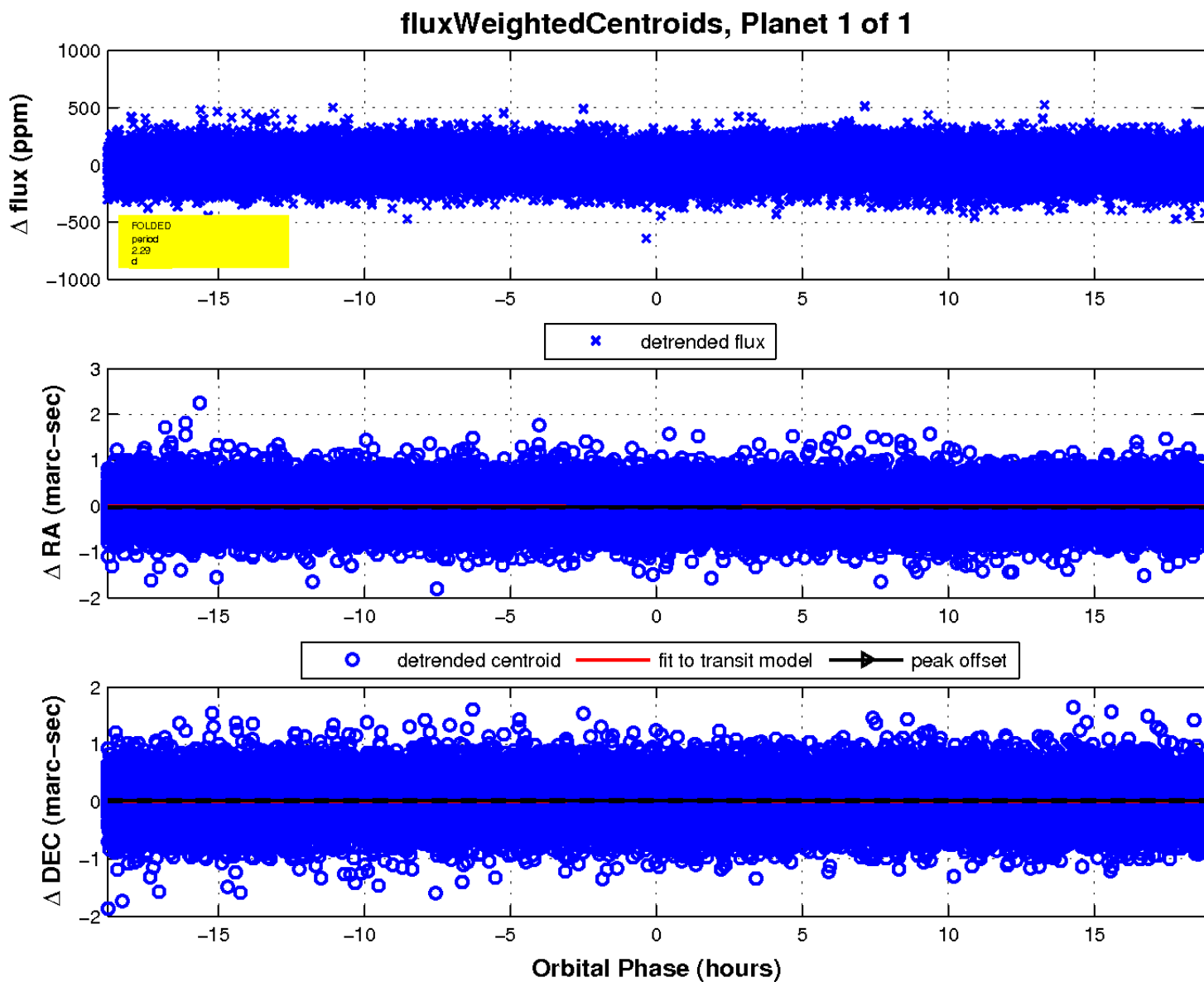
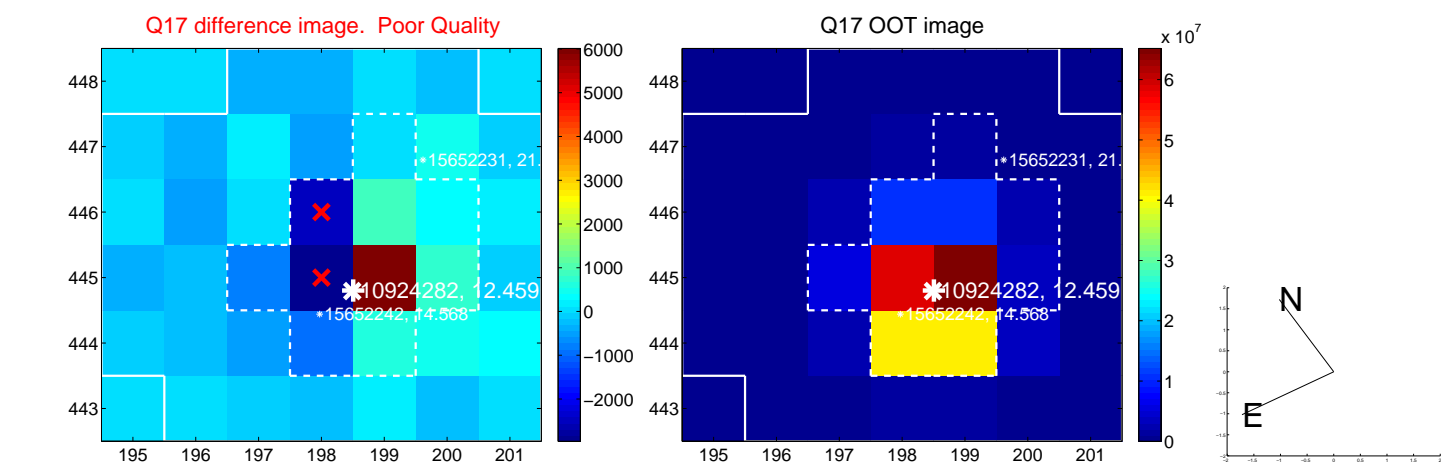
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination

